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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/777,241	02/12/2004	Torsten Niederdrank	P04,0027	4504

26574 7590 03/13/2007  
SCHIFF HARDIN, LLP  
PATENT DEPARTMENT  
6600 SEARS TOWER  
CHICAGO, IL 60606-6473

EXAMINER
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SWERDLOW, DANIEL

ART UNIT	PAPER NUMBER
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2615

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	03/13/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

## Office Action Summary

Application No.

10/777,241

Applicant(s)

NIEDERDRANK ET AL.

Examiner

Daniel Swerdlow

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 27 December 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-11 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-11 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)          | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

## **DETAILED ACTION**

### ***Continued Examination Under 37 CFR 1.114***

1. A request for continued examination under 37 CFR 1.114 was filed in this application after a decision by the Board of Patent Appeals and Interferences, but before the filing of a Notice of Appeal to the Court of Appeals for the Federal Circuit or the commencement of a civil action. Since this application is eligible for continued examination under 37 CFR 1.114 and the fee set forth in 37 CFR 1.17(e) has been timely paid, the appeal has been withdrawn pursuant to 37 CFR 1.114 and prosecution in this application has been reopened pursuant to 37 CFR 1.114. Applicant's submission filed on 27 December 2006 has been entered.

### ***Claim Rejections - 35 USC § 103***

2. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.
3. Claim 1 is rejected under 35 U.S.C. 103(a) as being unpatentable over Anderson (US Patent 5,721,783) in view of Balch et al. (US Patent 6,118,378).
4. Regarding Claim 1, Anderson discloses a hearing aid (Fig. 1, reference 10; Fig. 8; column 3, lines 52-60) that includes an RF transceiver (Fig. 1, reference 13) that corresponds to the data transmission device claimed and comprises: an oscillator (Fig. 8, reference 835) that is modulated (column 12, lines 20-24) to generate a reply signal that corresponds to the alterable transmission signal claimed (column 12, lines 24-38); and an antenna and resonator configuration (Fig. 4, reference 40, 41, 42) that includes a coil (Fig. 4, reference 41, 42) and is used for both interrogation and reply (i.e., transmission and reception) (column 11, lines 31-35).

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Therefore, Anderson anticipates all elements of Claim 1 except the coil being utilized as an antenna for transmission and reception. Balch discloses a transceiver circuit (Fig. 3) that uses a single coil as an antenna for transmission and reception (column 7, lines 25-37). Balch further discloses that such an arrangement provides lower manufacturing costs (column 1, lines 16-19) and significant performance enhancement (column 2, lines 44-51). It would have been obvious to one skilled in the art at the time of the invention to apply the single coil antenna taught by Balch to the hearing aid transceiver taught by Anderson for the purpose of realizing the aforesaid advantages.

5. Claims 2 through 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Anderson) in view of Balch and further in view of Sano (US Patent 6,828,868).

6. Regarding Claim 2, as shown above apropos of Claim 1, the combination of Anderson and Balch makes obvious all elements except that Anderson is silent as to the structure of the oscillator circuit 835 and Balch is silent as to the structure of the corresponding signal generator 78. Sano discloses an oscillating circuit (Fig. 5) comprising a resonant circuit of inductor (L1) and selectable capacitors (C1-1 through C3-2) (i.e., an LC resonant circuit) (column 4, lines 14-65). Sano further discloses that such an arrangement provides stable oscillations of controllable frequency and may be formed on an integrated circuit, which one skilled in the art would have known provides advantages in size, weight, economy and power conservation (column 7, lines 42-45, 55-58). It would have been obvious to one skilled in the art at the time of the invention to apply the oscillator taught by Sano to the combination made obvious by Anderson and Balch for the purpose of realizing the aforesaid advantages.

7. Regarding Claim 3, as shown above apropos of Claim 1, the combination of Anderson and Balch makes obvious all elements except that Anderson is silent as to the structure of the

oscillator circuit 835 and Balch is silent as to the structure of the corresponding signal generator 78. Sano discloses an oscillating circuit (Fig. 5) comprising a current source, differential pair and current mirror configuration (Fig. 5, reference I0, M1, M2, M3, M4; column 3, lines 26-59; column 4, lines 9-18) that corresponds to the actuation circuit claimed. Sano further discloses that such an arrangement provides stable oscillations of controllable frequency and may be formed on an integrated circuit, which one skilled in the art would have known provides advantages in size, weight, economy and power conservation (column 7, lines 42-45, 55-58). It would have been obvious to one skilled in the art at the time of the invention to apply the oscillator taught by Sano to the combination made obvious by Anderson and Balch for the purpose of realizing the aforesaid advantages.

8. Regarding Claim 4, as shown above apropos of Claim 3, the configuration that corresponds to the actuation circuit claimed comprises a current mirror (Fig. 5, reference M3, M4) and a differential pair (Fig. 5, reference I0, M1, M2) that corresponds to the comparator claimed.

9. Regarding Claim 5, Sano further discloses a driver (Fig. 8, reference D4) that corresponds to part of the current mirror claimed and comprises a control to control power output and oscillation amplitude (column 8, lines 31-37).

10. Regarding Claim 6, as shown above apropos of Claim 1, the combination of Anderson and Balch makes obvious all elements except that Anderson is silent as to the structure of the oscillator circuit 835 and Balch is silent as to the structure of the corresponding signal generator 78. Sano discloses an oscillating circuit (Fig. 3) comprising a connectable capacitor (C2) for readily changing the oscillation frequency (i.e., frequency modulating an oscillation in the oscillator circuit) (column 3, lines 60-67). Sano further discloses that such an arrangement

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provides stable oscillations of controllable frequency and may be formed on an integrated circuit, which one skilled in the art would have known provides advantages in size, weight, economy and power conservation (column 7, lines 42-45, 55-58). It would have been obvious to one skilled in the art at the time of the invention to apply the oscillator taught by Sano to the combination made obvious by Anderson and Balch for the purpose of realizing the aforesaid advantages.

11. Regarding Claim 7, as shown above apropos of Claim 1, the combination of Anderson and Balch makes obvious all elements except that Anderson is silent as to the structure of the oscillator circuit 835 and Balch is silent as to the structure of the corresponding signal generator 78. Sano discloses an oscillating circuit (Fig. 3) comprising a connectable capacitor (C2) and switch (S1) configuration that corresponds to the trimming device claimed for readily changing the oscillation frequency (i.e., trimming the resonant frequency of the oscillator circuit) (column 3, lines 60-67). Sano further discloses that such an arrangement provides stable oscillations of controllable frequency and may be formed on an integrated circuit, which one skilled in the art would have known provides advantages in size, weight, economy and power conservation (column 7, lines 42-45, 55-58). It would have been obvious to one skilled in the art at the time of the invention to apply the oscillator taught by Sano to the combination made obvious by Anderson and Balch for the purpose of realizing the aforesaid advantages.

12. Regarding Claim 8, as shown above apropos of Claim 7, the configuration that corresponds to the trimming device claimed comprises a connectable capacitor (C1).

13. Regarding Claim 9, Sano further discloses a driver (Fig. 8, reference D4) that corresponds to part of the current mirror claimed and receives an input that corresponds to the

actuation signal claimed to control output current amplitude (i.e., produce amplitude modulation) (column 8, lines 31-37).

14. Regarding Claim 10, Sano further discloses connectable capacitors (C1-1 through C3-2) that correspond to the modulator circuit claimed (column 4, lines 14-65).

15. Regarding Claim 11, Sano further discloses connectable capacitors (C1-1 through C3-2) that correspond to the trimming device claimed and control (i.e., trim) the resonant frequency of the oscillator circuit (column 4, lines 14-65).

#### ***Response to Arguments***

16. Applicant's arguments with respect to all claims have been considered but are moot in view of the new ground(s) of rejection.

#### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Daniel Swerdlow whose telephone number is 571-272-7531. The examiner can normally be reached on Monday through Friday between 7:30 AM and 5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Sinh H. Tran can be reached on 571-272-7564. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



Daniel Swerdlow  
Primary Examiner  
Art Unit 2615

ds  
8 March 2007